```
                          Welcome to DialogClassic Web(tm)
 Dialog level 04.20.00D
Last logoff:  22feb05 16:34:52
Logon file001 23feb05 16:22:08
          *** ANNOUNCEMENT ***
                    ***
--Important Notice to Freelance Authors--
See HELP FREELANCE for more information
                    ***
NEW FILES RELEASED
***German Patents Fulltext (File 324)

***Beilstein Abstracts (File 393)
***Beilstein Facts (File 390)
***Beilstein Reactions (File 391)
                    ***
RELOADED
Medline (Files 154 & 155)

                    ***

     >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >>>    of new databases, price changes, etc.      <<<
                    ****
KWIC is set to 50.
HILIGHT set on as ' '  * * *

File   1:ERIC 1966-2004/Jul 21
       (c) format only 2004 The Dialog Corporation

      Set  Items  Description
      ---  -----  -----------
Cost is in DialUnits
?
B 155, 159, 5, 73
       23feb05 16:23:06 User259876 Session D715.1
            $0.80    0.228 DialUnits File1
     $0.80  Estimated cost File1
     $0.26  INTERNET
     $1.06  Estimated cost this search
     $1.06  Estimated total session cost   0.228 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R) 1951-2005/Feb W3
       (c) format only 2005 The Dialog Corp.
 *File 155: Medline has been reloaded; acession numbers have changed.
Please see HELP NEWS 154.
  File 159:Cancerlit 1975-2002/Oct
       (c) format only 2002 Dialog Corporation
 *File 159: Cancerlit is no longer updating.
Please see HELP NEWS159.
  File   5:Biosis Previews(R) 1969-2005/Feb W2
       (c) 2005 BIOSIS
 *File   5: Price change effective Jan 1, 2005. Enter HELP
RATES 5 for details.
  File  73:EMBASE 1974-2005/Feb W2
       (c) 2005 Elsevier Science B.V.
 *File  73: Price change effective Jan 1, 2005. Enter HELP
RATES 73 for details.

      Set  Items  Description
      ---  -----  -----------
?
S (HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W) (PROGENITOR? OR PRECURSOR?
         169169  HEMATOPOIETIC
```

```
        408175  STEM
       5466716  CELLS
         51419  HEMATOPOIETIC(W)STEM(W)CELLS
        367383  ENDOTHELIAL
        111899  PROGENITOR?
        380138  PRECURSOR?
          1764  ENDOTHELIAL(W)(PROGENITOR? OR PRECURSOR?)
   S1     188  (HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W)
               (PROGENITOR? OR PRECURSOR?))
?
S S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
          188  S1
        20971  CD45
        75430  CD3
         4701  CD11
           24  TER-119
            5  LY-6G
   S2       0  S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
?
S S1 AND (OCULAR (W) ANGIOGENESIS)
          188  S1
       188021  OCULAR
        83794  ANGIOGENESIS
          149  OCULAR(W)ANGIOGENESIS
   S3       0  S1 AND (OCULAR (W) ANGIOGENESIS)
?
S S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
Processing
          188  S1
       188021  OCULAR
       492961  EYE
      8446823  DISEASE?
      1885245  DISORDER?
       120067  (OCULAR OR EYE)(W)(DISEASE? OR DISORDER?)
   S4      12  S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
?
RD
...completed examining records
   S5      10  RD (unique items)
?
T S5/3,K/ALL

  5/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.

14376682   PMID: 12145646
 Bone marrow-derived stem cells target retinal astrocytes and can promote
 or inhibit retinal angiogenesis.
  Otani Atsushi; Kinder Karen; Ewalt Karla; Otero Francella J; Schimmel
Paul; Friedlander Martin
  Department of Cell Biology, The Scripps Research Institute, La Jolla,
California, USA.
  Nature medicine (United States) Sep 2002, 8 (9) p1004-10, ISSN
1078-8956 Journal Code: 9502015
  Contract/Grant No.: CA92577; CA; NCI; EY11254; EY; NEI; EY12598; EY; NEI;
EY12599; EY; NEI
  Publishing Model Print-Electronic; Comment in Nat Med. 2002
Sep;8(9) 932-4; Comment in PMID 12205451
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: MEDLINE; Completed

  Adult bone marrow (BM) contains cells capable of differentiating along
```

hematopoietic (Lin(+)) or non-hematopoietic (Lin(-)) lineages. Lin(-) **hematopoietic stem cells** (HSCs) have recently been shown to contain a population of **endothelial precursor** cells (EPCs) capable of forming blood vessels. Here we show that intravitreally injected Lin(-) BM cells selectively target retinal astrocytes, cells that serve as a...

... normal angiogenesis and pathological vascular degeneration in the retina. Selective targeting with Lin(-) HSC may be a useful therapeutic approach for the treatment of many **ocular diseases** .

5/3,K/2 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0015078586 BIOSIS NO.: 200400459815
Rescue of retinal degeneration by intravitreally injected adult bone marrow-derived lineage-negative hematopoietic stem cells
AUTHOR: Otani Atsushi; Dorrell Michael Ian; Kinder Karen; Moreno Stacey K; Nusinowitz Steven; Banin Eyal; Heckenlively John; Friedlander Martin (Reprint)
AUTHOR ADDRESS: Dept Cell Biol, Scripps Res Inst, 10550 N Torrey Pines Rd, La Jolla, CA, 92037, USA**USA
AUTHOR E-MAIL ADDRESS: friedlan@scripps.edu
JOURNAL: Journal of Clinical Investigation 114 (6): p765-774 September 2004 2004
MEDIUM: print
ISSN: 0021-9738
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Rescue of retinal degeneration by intravitreally injected adult bone marrow-derived lineage-negative hematopoietic stem cells

...ABSTRACT: degeneration is not clear. In this study we demonstrate that whenever a fraction of mouse or human adult bone marrow-derived stem cells (lineage-negative **hematopoietic stem cells** (Lin- HSCs)) containing **endothelial precursors** stabilizes and rescues retinal blood vessels that would ordinarily completely degenerate, a dramatic neurotrophic rescue effect is also observed. Retinal nuclear layers are preserved in...
DESCRIPTORS:
...DISEASES: **eye disease** , genetic disease, genetics, therapy

5/3,K/3 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014796384 BIOSIS NO.: 200400163725
Choroidal neovascularization is provided by bone marrow cells.
AUTHOR: Tomita Minoru; Yamada Haruhiko; Adachi Yasushi; Cui Yunze; Yamada Eri; Higuchi Akiko; Minamino Keizo; Suzuki Yasuhiko; Matsumura Miyo; Ikehara Susumu (Reprint)
AUTHOR ADDRESS: First Department of Pathology, Kansai Medical University, Fumizono-cho, Moriguchi City, Osaka, 570-8506, Japan**Japan
AUTHOR E-MAIL ADDRESS: ikehara@takii.kmu.ac.jp
JOURNAL: Stem Cells (Miamisburg) 22 (1): p21-26 2004 2004
MEDIUM: print
ISSN: 1066-5099 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: has recently been shown that bone marrow cells (BMCs) can differentiate into various cell lineages in vitro and in vivo. Adults maintain a reservoir of **hematopoietic stem cells** included in BMCs that can enter the circulation to reach various organs in need of regeneration. It has recently been reported that **endothelial progenitor** cells (EPCs) included in BMCs are associated with neovascularization. We examine the role of BMCs in CNV using a model of CNV in adult mice...
DESCRIPTORS:
...DISEASES: **eye disease** , vascular disease, etiology

5/3,K/4 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014664837 BIOSIS NO.: 200400035594
The role of adult bone marrow-derived stem cells in choroidal neovascularization.
AUTHOR: Sengupta Nilanjana; Caballero Sergio; Mames Robert N; Butler Jason M; Scott Edward W; Grant Maria B (Reprint)
AUTHOR ADDRESS: Department of Pharmacology and Therapeutics, University of Florida, P. O. Box 100267, Gainesville, FL, 32610-0267, USA**USA
AUTHOR E-MAIL ADDRESS: grantma@pharmacology.ufl.edu
JOURNAL: IOVS 44 (11): p4908-4913 November 2003 2003
MEDIUM: print
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: of blindness in people aged of 50 years or more. The wet form leads to severe loss of central vision. Recent evidence supports that adult **hematopoietic stem cells** (HSCs) contribute to preretinal neovascularization. In the current study, it was determined whether HSCs, by producing both blood and blood vessels, provide functional hemangioblast activity...
...were killed and eyes enucleated at 1, 2, 3, and 4 weeks after laser injury. CNV was examined by confocal microscopy of retinal flatmounts. Because **endothelial progenitor** cells (EPCs) derive from HSCs, immunocytochemistry was used to quantify relative the EPC contribution to CNV. RESULTS: Laser injury alone was sufficient to induce stem...
DESCRIPTORS:
...ORGANISMS: PARTS ETC: **endothelial progenitor** cell
...DISEASES: **eye disease** , pathology...

... **eye disease** , pathology

5/3,K/5 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014570883 BIOSIS NO.: 200300525780
HEMANGIOBLAST ACTIVITY OF STEM CELLS AS PROMOTED BY INJURY AND MODULATED BY NITRIC OXIDE IN A MODEL OF RETINAL NEOVASCULARIZATION
AUTHOR: Sengupta N (Reprint); Caballero S (Reprint); Scott E W; Mames R N; Guthrie S M; Grant M B (Reprint)
AUTHOR ADDRESS: Pharmacology/Therapeutics, University Florida, Gainesville, FL, USA**USA
JOURNAL: ARVO Annual Meeting Abstract Search and Program Planner 2003 p Abstract No. 2096 2003 2003
MEDIUM: cd-rom
CONFERENCE/MEETING: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, FL, USA May 04-08, 2003; 20030504

SPONSOR: Association for Research in Vision and Ophthalmology
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Purpose: We have previously shown that adult **hematopoietic stem cells** (HSC) can function as hemangioblasts by making both blood cells and new retinal blood vessels (Nat Med 2002 8:607). Nitric oxide (NO) is one...

...hemangioblast activity in tissues outside the retina, indicating that chronic injury is sufficient to induce HSC plasticity. Conclusions: Our earlier studies provided formal proof that **endothelial progenitors** are clonally derived and serially transplantable long-term reconstituting HSC. These experiments support that NOS activity at the site of vascular injury dictates the size...
DESCRIPTORS:
...DISEASES: **eye disease** ;

5/3,K/6 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014557217 BIOSIS NO.: 200300512580
THE DISTRIBUTION OF PROGENITOR AND MATURE ENDOTHELIAL CELLS IN CHOROIDAL NEOVASCULAR MEMBRANES FROM PATIENTS WITH AGE - RELATED MACULAR DEGENERATION
AUTHOR: Sheridan C M (Reprint); Kent D (Reprint); Rice D (Reprint); Hiscott P (Reprint); Grierson I (Reprint)
AUTHOR ADDRESS: Ophthal Dept Med, University of Liverpool, Liverpool, UK** UK
JOURNAL: ARVO Annual Meeting Abstract Search and Program Planner 2003 p Abstract No. 1734 2003 2003
MEDIUM: cd-rom
CONFERENCE/MEETING: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, FL, USA May 04-08, 2003; 20030504
SPONSOR: Association for Research in Vision and Ophthalmology
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: body. The recruitment of circulating stem cells is a key feature of vasculogenesis. The purpose of this study was to immunohistochemically determine whether markers of **hematopoietic stem cells** are present in choroidal neovascular membranes. Methods: Choroidal neovascular membranes were surgically removed from patients with age-related macular degeneration (n=8). All membranes were...

...and serially sectioned for histochemical and immunohistochemical evaluation. Monoclonal antibodies against cell markers for AC133-1 and AC133-2 a human antigen recently identified as **endothelial progenitor** cell marker absent on mature endothelium; endothelial cell markers CD31, CD34 and von Willebrand factor, as well as for other cell types known to be...

...cells, which are immunoreactive for various markers of endothelial cell differentiation. The finding indicates that CNVs contain endothelial cells in different stages of differentiation from **endothelial progenitor** cells to mature endothelial cells and supports the suggestion of a possible role for vasculogenesis as well as angiogenesis during CNV pathogenesis.
DESCRIPTORS:
...DISEASES: **eye disease** , pathology...

... **eye disease** , vascular disease, therapy

5/3,K/7 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014556113 BIOSIS NO.: 200300511476
STEM CELL RECRUITMENT AND PARTICIPATION IN CHOROIDAL NEOVASCULARIZATION FOLLOWING RUPTURE TO BRUCH'S MEMBRANE
AUTHOR: Caballero S (Reprint); Sengupta N (Reprint); Mames R N; Scott E W; Grant M B (Reprint)
AUTHOR ADDRESS: Pharmacology/Therapeutics, University of Florida, Gainesville, FL, USA**USA
JOURNAL: ARVO Annual Meeting Abstract Search and Program Planner 2003 p Abstract No. 546 2003 2003
MEDIUM: cd-rom
CONFERENCE/MEETING: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, FL, USA May 04-08, 2003; 20030504
SPONSOR: Association for Research in Vision and Ophthalmology
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: blindness in the elderly. Choroidal neovascularization (CNV) is responsible of 80% of severe visual loss in patients with AMD. We have previously shown that adult **hematopoietic stem cells** (HSC) can function as hemangioblasts, making both blood and preretinal blood vessels (Nat Med 2002, 8:607). We now asked whether hemangioblasts could participate in...

...the underlying angiogenic stimuli. These treatments also do not consider the potential sources of new blood vessels, i.e. resident endothelial proliferation versus recruitment of **endothelial precursors** . Laser injury to Bruch's membrane resulted in sufficient injury to induce HSC transdifferentiation and incorporation into CNV. These data indicate that recruitment of circulating...
DESCRIPTORS:
...DISEASES: **eye disease** ; ...

... **eye disease**

5/3,K/8 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014408955 BIOSIS NO.: 200300367674
Anti-SDF-1 Antibody Blocks Retinal Neovascularization in Adult Onset Retinal Ischemia Model.
AUTHOR: Butler Jason M (Reprint); Guthrie Steven M (Reprint); Grant Maria (Reprint); Brown Gary A J (Reprint); Scott Edward W (Reprint)
AUTHOR ADDRESS: Molecular Genetics and Microbiology, University of Florida, Gainesville, FL, USA**USA
JOURNAL: Blood 100 (11): pAbstract No. 4190 November 16, 2002 2002
MEDIUM: print
CONFERENCE/MEETING: 44th Annual Meeting of the American Society of Hematology Philadelphia, PA, USA December 06-10, 2002; 20021206
SPONSOR: American Society of Hematology
ISSN: 0006-4971
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: SDF-1 is a potent chemokine, which is believed to be a determining factor in hematopoietic stem cell (HSC) homing and **endothelial progenitor** cell (EPC) migration. We hypothesized that ischemic retinal injury would lead to a build up of SDF-1 in the low-protease environment of the...
DESCRIPTORS:
...ORGANISMS: PARTS ETC: **hematopoietic stem cells** --
...DISEASES: **eye disease** , injury, vascular disease...

... **eye disease** , etiology

5/3,K/9 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013759057 BIOSIS NO.: 200200352568
Adult hematopoietic stem cells **provide functional hemangioblast activity during retinal neovascularization**
AUTHOR: Grant Maria B (Reprint); May W Stratford; Caballero Sergio; Brown Gary A J; Guthrie Steven M; Mames Robert N; Byrne Barry J; Vaught Timothy ; Spoerri Polyxenie E; Peck Ammon B; Scott Edward W (Reprint)
AUTHOR ADDRESS: Program in Stem Cell Biology, University of Florida, Gainesville, FL, USA**USA
JOURNAL: Nature Medicine 8 (6): p607-612 June, 2002 2002
MEDIUM: print
ISSN: 1078-8956
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Adult hematopoietic stem cells **provide functional hemangioblast activity during retinal neovascularization**

ABSTRACT: Adults maintain a reservoir of **hematopoietic stem cells** that can enter the circulation to reach organs in need of regeneration. We developed a novel model of retinal neovascularization in adult mice to examine the role of **hematopoietic stem cells** in revascularizing ischemic retinas. Adult mice were durably engrafted with **hematopoietic stem cells** isolated from transgenic mice expressing green fluorescent protein. We performed serial long-term transplants, to ensure activity arose from self-renewing stem cells, and single...

...cell transplants to show clonality. After durable hematopoietic engraftment was established, retinal ischemia was induced to promote neovascularization. Our results indicate that self-renewing adult **hematopoietic stem cells** have functional hemangioblast activity, that is, they can clonally differentiate into all hematopoietic cell lineages as well as endothelial cells that revascularize adult retina. We also show that recruitment of **endothelial precursors** to sites of ischemic injury has a significant role in neovascularization.
DESCRIPTORS:
ORGANISMS: PARTS ETC: **hematopoietic stem cells** --
...DISEASES: **eye disease** , vascular disease

5/3,K/10 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013681415 BIOSIS NO.: 200200274926
Stromal cell-derived factor-1 effect on endothelial progenitor **cell mobilization and recruitment for ischemic neovascularization**
AUTHOR: Yamaguchi Jun-ichi (Reprint); Masuo Osamu (Reprint); Silver Marcy;

Kawamoto Atsuhiko; Murasawa Satoshi; Bosch-Marce Marta; Masuda Haruchika; Kalka Christoph; Asahara Takayuki
AUTHOR ADDRESS: St Elizabeth's Med Ctr of Boston, Boston, MA, USA**USA
JOURNAL: Circulation 104 (17 Supplement): pII.260 October 23, 2001 2001
MEDIUM: print
CONFERENCE/MEETING: Scientific Sessions 2001 of the American Heart Association Anaheim, California, USA November 11-14, 2001; 20011111
SPONSOR: American Heart Association
ISSN: 0009-7322
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

Stromal cell-derived factor-1 effect on endothelial progenitor **cell mobilization and recruitment for ischemic neovascularization**
DESCRIPTORS:
...ORGANISMS: PARTS ETC: **endothelial progenitor** cell...
... **hematopoietic stem cells** --
...DISEASES: **eye disease** , vascular disease
?

Set	Items	Description
S1	188	(HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W) (PROGENITOR? OR PRECURSOR?))
S2	0	S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
S3	0	S1 AND (OCULAR (W) ANGIOGENESIS)
S4	12	S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
S5	10	RD (unique items)

?
S S1 AND (ANTI-ANGIOGENESIS OR ANTI-ANGIOGENIC OR TRPRS)

	188	S1
	34	ANTI-ANGIOGENESIS
	74	ANTI-ANGIOGENIC
	177	TRPRS
S6	0	S1 AND (ANTI-ANGIOGENESIS OR ANTI-ANGIOGENIC OR TRPRS)

?
S S1 AND (PLASMID OR VECTOR)

	188	S1
	203468	PLASMID
	296300	VECTOR
S7	8	S1 AND (PLASMID OR VECTOR)

?
RD
...completed examining records

S8	7	RD (unique items)

?
T S8/3,K/ALL

8/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15314321 PMID: 15109917
Recruitment of marrow-derived endothelial cells to experimental choroidal neovascularization by local expression of vascular endothelial growth factor.
Csaky Karl G; Baffi Judit Z; Byrnes Gordon A; Wolfe Jeremy D; Hilmer Sara C; Flippin Jessica; Cousins Scott W
National Institutes of Health, National Eye Institute, Building 10-10B11, 9000 Rockville Pike, Bethesda, MD 20892-1857, USA. kcasky@helix.nih.gov
Experimental eye research (England) Jun 2004, 78 (6) p1107-16, ISSN 0014-4835 Journal Code: 0370707
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH

Main Citation Owner: NLM
Record type: MEDLINE; Completed

PURPOSE: The question of whether adult animals maintain a reservoir of **endothelial progenitor** cells (EPCs) in the bone marrow that is involved in neovascularization is under investigation. The following study was undertaken to examine the potential contribution of...
... expressing LacZ driven by the endothelial specific Tie-2 promoter. Two months, following bone marrow reconstitution, confirmed by quantitative Taqman PCR, an E1-deleted adenoviral **vector** expressing vascular endothelial growth factor (165) (Ad.VEGF(165)) was injected subretinally to induce CNV, confirmed by collagen IV immunohistochemistry. Bone marrow-derived endothelial cells...
Descriptors: *Choroidal Neovascularization--pathology--PA; *Endothelial Cells--pathology--PA; * **Hematopoietic Stem Cells** --pathology--PA; *Vascular Endothelial Growth Factor A--metabolism--ME

8/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15111554 PMID: 14551158
Sustained expansion and transgene expression of coagulation factor VIII-transduced cord blood-derived endothelial progenitor□ cells.□
Herder Christian; Tonn Torsten; Oostendorp Robert; Becker Sven; Keller Ulrich; Peschel Christian; Grez Manuel; Seifried Erhard
Institute for Transfusion Medicine and Immunohematology, Red Cross Blood Donor Service Baden-Wurttemberg-Hessen, Sandhofstr. 1, 60528 Frankfurt am Main, Germany.
Arteriosclerosis, thrombosis, and vascular biology (United States) Dec 2003, 23 (12) p2266-72, ISSN 1524-4636 Journal Code: 9505803
Publishing Model Print-Electronic; Comment in Arterioscler Thromb Vasc Biol. 2003 Dec;23(12) 2117-8; Comment in PMID 14672877
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Sustained expansion and transgene expression of coagulation factor VIII-transduced cord blood-derived endothelial progenitor□ cells.□
... target cell for recombinant FVIII expression and gene therapy approaches remains to be identified. In this study, we tested the capacity of cord blood-derived **endothelial progenitor** cells (CBECs) for FVIII expression on stable lentiviral transduction. METHODS AND RESULTS: CD34+ **endothelial progenitor** cells (EPCs) from cord blood were differentiated into CBECs. Endothelial phenotype was characterized, and lentiviral transduction of early-passage CBECs with a **vector** encoding FVIII and EGFP did not alter their functional properties and proliferative potential. CBEC could be expanded by 5 to 9 orders of magnitude, thus...
Descriptors: *Endothelium, Vascular--chemistry--CH; *Endothelium, Vascular--metabolism--ME; *Factor VIII--genetics--GE; * **Hematopoietic Stem Cells** --chemistry--CH; * **Hematopoietic Stem Cells** --metabolism --ME; *Transgenes--genetics--GE...; Vascular--cytology--CY; Endothelium, Vascular--virology--VI; Factor VIII--biosynthesis--BI; Factor VIII --immunology--IM; Factor VIII--secretion--SE; Fetal Blood; Gene Therapy --methods--MT; **Hematopoietic Stem Cells** --virology--VI; Hemophilia A --therapy--TH; Humans; Lentivirus--genetics--GE; Luminescent Proteins --genetics--GE; Phenotype; Recombinant Fusion Proteins--genetics--GE; Transduction, Genetic--standards--ST; Transduction...

8/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14537676 PMID: 12489999
Analysis of origin and optimization of expansion and transduction of circulating peripheral blood endothelial progenitor **cells in the rhesus macaque model.**
Hu J; Takatoku M; Sellers S E; Agricola B A; Metzger M E; Donahue R E; Dunbar C E
Hematology Branch, National Heart, Lung, and Blood Institute/NIH, 9000 Rockville Pike, Bethesda, MD 20892, USA.
Human gene therapy (United States) Nov 20 2002, 13 (17) p2041-50, ISSN 1043-0342 Journal Code: 9008950
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Analysis of origin and optimization of expansion and transduction of circulating peripheral blood endothelial progenitor **cells in the rhesus macaque model.**
... cells have been shown to contribute to various nonhematologic tissues and, conversely, primitive cells isolated from nonhematopoietic tissues have been shown to reconstitute hematopoiesis. Circulating **endothelial progenitor** cells (EPCs) have been reported to be at least partially donor derived after allogeneic bone marrow transplantation, and shown to contribute to neovascularization in murine...

... CD14(-) via flow cytometry, as acLDL(+) UEA-1(+) via immunohistochemistry, and as Flk-1(+) by reverse transcriptase-polymerase chain reaction (RT-PCR). Animals had stable **vector** marking in hematopoietic lineages of 2-15%. Neither cultured circulating EPCs collected in steady state (n = 3), nor endothelial cells grown from large vessels (n...
...; Cultured; Clone Cells; Endothelium, Vascular--drug effects--DE; Endothelium, Vascular--immunology--IM; Erythroid Progenitor Cells --metabolism--ME; Genetic Vectors; Granulocyte Colony-Stimulating Factor --pharmacology--PD; **Hematopoietic Stem Cells** ; Leukocytes, Mononuclear --cytology--CY; Leukocytes, Mononuclear--drug effects--DE; Luminescent Proteins--metabolism--ME; Macaca mulatta; Mice; Models, Animal; Retroviridae--genetics--GE; Transduction, Genetic

8/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13125430 PMID: 11106265
Genetically modified CD34+ cells exert a cytotoxic bystander effect on human endothelial and cancer cells.
Arafat W O; Casado E; Wang M; Alvarez R D; Siegal G P; Glorioso J C; Curiel D T; Gomez-Navarro J
Department of Medicine, University of Alabama at Birmingham, 35294, USA.
Clinical cancer research - an official journal of the American Association for Cancer Research (UNITED STATES) Nov 2000, 6 (11) p4442-8, ISSN 1078-0432 Journal Code: 9502500
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... as gene delivery vehicles with the potential for overcoming physiological barriers to viral vectors. To that end, we previously have shown the potential of CD34+ **endothelial progenitors** for systemic gene delivery in a primate angiogenesis model. Here we seek to explore the

utility of CD34+ cells of human origin as vehicles for...
... effect a cytotoxic bystander effect in human endothelium and tumor cells. To this end, CD34+ cells were transduced with TOZ.1, a nonreplicative herpes simplex **vector** encoding thymidine kinase. To test the capacity of CD34+ cells to induce a cytotoxic bystander effect in target cells, we performed mixing experiments, whereby TOZ...
Descriptors: *Antigens, CD34--analysis--AN; *Endothelium, Vascular --metabolism--ME; *Gene Therapy; * **Hematopoietic Stem Cells** --physiology--PH; *Neoplasms--therapy--TH

8/3,K/5 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2005 BIOSIS. All rts. reserv.

0013605518 BIOSIS NO.: 200200199029
Ectopic expression of KDR on TF1 progenitor cell line induces transient expression of endothelial markers and Fas-mediated apoptosis
AUTHOR: Coppola Simona (Reprint); Fecia Tiziana (Reprint); Narcisco Laura (Reprint); Bonci Desiree (Reprint); Conticello Concetta (Reprint); Testa Ugo (Reprint); De Maria Ruggero (Reprint); Peschle Cesare (Reprint)
AUTHOR ADDRESS: Dept of Hematology and Oncology, Instituto Superiore di Sanita, Rome, Italy**Italy
JOURNAL: Blood 98 (11 Part 1): p556a November 16, 2001 2001
MEDIUM: print
CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of Hematology, Part 1 Orlando, Florida, USA December 07-11, 2001; 20011207
SPONSOR: American Society of Hematology
ISSN: 0006-4971
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: cells and transduces proliferation, differentiation and survival signals (Karkkainen MJ, Petrova TV, Oncogene, 2000). Recently, we have shown that KDR is also expressed on CD34+ **hematopoietic stem cells** (Ziegler BL. et al, Scient, 1999) and is lost on hematopoietic progenitors and differentiated precursors, except late megakaryocytes. CD34+KDR+ cells also contain **endothelial precursors** (Peichev M. et al, Blood, 2000; Pelosi et al., ASH, 2001) and hemoangioblasts (Valtieri M. et al, ASH, 2001). In order to investigate the role played by KDR in late hematopoietic progenitor cells, we transduced the progenitor cell line TF1 with a retroviral **vector** encoding for the KDR gene. KDR-expressing cells were then purified by FACSVantage and a stable cell line was established (TF1-KDR). The TF1-KDR...
DESCRIPTORS:
...ORGANISMS: gene **vector**

8/3,K/6 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2005 BIOSIS. All rts. reserv.

0013558306 BIOSIS NO.: 200200151817
Comparative analysis of anti-KDR MoAbs (KDR1, KDR2): Specificity and capacity to recognize both hematopoietic stem cells **and** endothelial precursors
AUTHOR: Botta Rosanna (Reprint); Mueller Robert (Reprint); Coppola Simona; Iannolo Gioacchin (Reprint); Pelosi Elvira; De Maria Ruggero; Valtieri Mauro (Reprint); Peschle Cesare (Reprint)
AUTHOR ADDRESS: Kimmel Cancer Center, T. Jefferson University, Philadelphia, PA, USA**USA
JOURNAL: Blood 98 (11 Part 2): p114b November 16, 2001 2001
MEDIUM: print
CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of

Hematology, Part 2 Orlando, Florida, USA December 07-11, 2001; 20011207
SPONSOR: American Society of Hematology
ISSN: 0006-4971
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

Comparative analysis of anti-KDR MoAbs (KDR1, KDR2): Specificity and capacity to recognize both hematopoietic stem cells **and** endothelial precursors

...ABSTRACT: grow factor receptor 2 (KDR in humans, Flk1 in mice): this cell subset comprises hematopoietic stem and primitive progenitor cells (Ziegler et al, Science, 1999), **endothelial precursors** (Peichev et al, Blood, 2000; Pelosi et al, ASH, 2001) and hemoangioblasts (Valtieri) et la, ASH, 2001). Studies on the CD34+KDR+ cell population have...

...To confirm the specificity of KDR1/KDR2 MoAbs, diverse KDR-leukemic cell lines (MV-4-11, TF1, U937) were transduced with KDR cDNA in retroviral **vector** (De Maria et al, Nature, 1999). The cells expressing exogenous KDR were recognized by the MoAbs, as evaluated by flow cytometry and immunofluorescence analysis. Furthermore, Western blot analysis indicated that exogenous KDR is recognized by the MoAbs. To confirm that both MoAbs recognize CD34+KDR+ **hematopoietic stem cells** (HSCs), CD34+ cells freshly separated from CB were stained with KDR1 and/or KDR2 Ab and separated into KDR+ vs KDR- cells by FACSVantage. Unseparated...

...et al, ASH, 2001), as well as few mixed hematoendothelial clones (Valtieri et al, ASH 2001), indicating the presence of not only HSCs but also **endothelial precursors** and hemoangioblasts in CD34+KDR+ cells.
DESCRIPTORS:
ORGANISMS: PARTS ETC: **endothelial precursors** --...

... **hematopoietic stem cells** --

8/3,K/7 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

11162344 EMBASE No: 2001177504
Vascular endothelial growth factor and angiopoietin-1 stimulate postnatal hematopoiesis by recruitment of vasculogenic and hematopoietic stem cells
Hattori K.; Dias S.; Heissig B.; Hackett N.R.; Lyden D.; Tateno M.; Hicklin D.J.; Zhu Z.; Witte L.; Crystal R.G.; Moore M.A.S.; Rafii S.
S. Rafii, Cornell University Medical College, Division of Hematology-Oncology, 1300 York Ave., New York, NY 10021 United States
AUTHOR EMAIL: srafii@mail.med.cornell.edu
Journal of Experimental Medicine (J. EXP. MED.) (United States) 07 MAY 2001, 193/9 (1005-1014)
CODEN: JEMEA ISSN: 0022-1007
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 24

Vascular endothelial growth factor and angiopoietin-1 stimulate postnatal hematopoiesis by recruitment of vasculogenic and hematopoietic stem cells

...for angiogenic factors vascular endothelial growth factor (VEGF) and angiopoietin-1 (Ang-1) are expressed not only by endothelial cells but also by subsets of **hematopoietic stem cells** (HSCs). To further define their role in the regulation of postnatal hematopoiesis and vasculogenesis, VEGF and Ang-1 plasma levels were elevated by injecting recombinant...

...VEGFSUB165, matrix-bound VEGFSUB189, or Ang-1 into mice. VEGFSUB165, but not VEGFSUB189, induced a rapid mobilization of HSCs and VEGF receptor (VEGFR)2SUP+ circulating **endothelial precursor** cells (CEPs). In contrast, Ang-1 induced delayed mobilization of CEPs and HSCs. Combined sustained elevation of Ang-1 and VEGFSUB165 was associated with an...
MEDICAL DESCRIPTORS:
postnatal development; virus **vector** ; precursor cell; capillary proliferation; splenomegaly; SCID mouse; nonhuman; male; female; mouse; controlled study; animal tissue; animal cell; article; priority journal
?

```
Set     Items   Description
S1        188   (HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W) (P-
            ROGENITOR? OR PRECURSOR?))
S2          0   S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
S3          0   S1 AND (OCULAR (W) ANGIOGENESIS)
S4         12   S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
S5         10   RD (unique items)
S6          0   S1 AND (ANTI-ANGIOGENESIS OR ANTI-ANGIOGENIC OR TRPRS)
S7          8   S1 AND (PLASMID OR VECTOR)
S8          7   RD (unique items)
?
S S1 AND (INTRAVITREALLY OR INTRAVITREAL)
           188  S1
          1716  INTRAVITREALLY
         10364  INTRAVITREAL
     S9      7  S1 AND (INTRAVITREALLY OR INTRAVITREAL)
?
RD
...completed examining records
    S10      3  RD (unique items)
?
T S10/3,K/ALL
```

10/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.

16295308 PMID: 15372100
Rescue of retinal degeneration by intravitreally **injected adult bone marrow-derived lineage-negative** hematopoietic stem□ □ cells□.□
Otani Atsushi; Dorrell Michael Ian; Kinder Karen; Moreno Stacey K; Nusinowitz Steven; Banin Eyal; Heckenlively John; Friedlander Martin
Department of Cell Biology, The Scripps Research Institute, La Jolla, California 92037, USA.
Journal of clinical investigation (United States) Sep 2004, 114 (6) p765-74, ISSN 0021-9738 Journal Code: 7802877
Contract/Grant No.: EY11254; EY; NEI
Publishing Model Print; Comment in J Clin Invest. 2004 Sep;114(6) 755-7; Comment in PMID 15372096
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Rescue of retinal degeneration by intravitreally **injected adult bone marrow-derived lineage-negative** hematopoietic stem□ □ cells□.□
... degeneration is not clear. In this study we demonstrate that whenever a fraction of mouse or human adult bone marrow-derived stem cells (lineage-negative **hematopoietic stem cells** [Lin- HSCs]) containing **endothelial precursors** stabilizes and rescues retinal blood vessels that would ordinarily completely degenerate, a dramatic neurotrophic rescue effect is also observed. Retinal nuclear layers are preserved in...

10/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14376682 PMID: 12145646
Bone marrow-derived stem cells target retinal astrocytes and can promote or inhibit retinal angiogenesis.
Otani Atsushi; Kinder Karen; Ewalt Karla; Otero Francella J; Schimmel Paul; Friedlander Martin
Department of Cell Biology, The Scripps Research Institute, La Jolla, California, USA.
Nature medicine (United States) Sep 2002, 8 (9) p1004-10, ISSN 1078-8956 Journal Code: 9502015
Contract/Grant No.: CA92577; CA; NCI; EY11254; EY; NEI; EY12598; EY; NEI; EY12599; EY; NEI
Publishing Model Print-Electronic; Comment in Nat Med. 2002 Sep;8(9) 932-4; Comment in PMID 12205451
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Adult bone marrow (BM) contains cells capable of differentiating along hematopoietic (Lin(+)) or non-hematopoietic (Lin(-)) lineages. Lin(-) **hematopoietic stem cells** (HSCs) have recently been shown to contain a population of **endothelial precursor** cells (EPCs) capable of forming blood vessels. Here we show that **intravitreally** injected Lin(-) BM cells selectively target retinal astrocytes, cells that serve as a template for both developmental and injury-associated retinal angiogenesis. When Lin(-) BM...

10/3,K/3 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014570883 BIOSIS NO.: 200300525780
HEMANGIOBLAST ACTIVITY OF STEM CELLS AS PROMOTED BY INJURY AND MODULATED BY NITRIC OXIDE IN A MODEL OF RETINAL NEOVASCULARIZATION
AUTHOR: Sengupta N (Reprint); Caballero S (Reprint); Scott E W; Mames R N; Guthrie S M; Grant M B (Reprint)
AUTHOR ADDRESS: Pharmacology/Therapeutics, University Florida, Gainesville, FL, USA**USA
JOURNAL: ARVO Annual Meeting Abstract Search and Program Planner 2003 p Abstract No. 2096 2003 2003
MEDIUM: cd-rom
CONFERENCE/MEETING: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, FL, USA May 04-08, 2003; 20030504
SPONSOR: Association for Research in Vision and Ophthalmology
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Purpose: We have previously shown that adult **hematopoietic stem cells** (HSC) can function as hemangioblasts by making both blood cells and new retinal blood vessels (Nat Med 2002 8:607). Nitric oxide (NO) is one...

...engraftment was confirmed at three months post-transplant by flow cytometry analysis of peripheral blood. Animals subsequently underwent our model of ischemic injury induction by **intravitreal** injection of rAAV-VEGF followed by laser ablation injury as previously described. Results: WT hemangioblast activity in adult iNOS-/- recipients resulted

in the formation of...

...hemangioblast activity in tissues outside the retina, indicating that chronic injury is sufficient to induce HSC plasticity. Conclusions: Our earlier studies provided formal proof that **endothelial progenitors** are clonally derived and serially transplantable long-term reconstituting HSC. These experiments support that NOS activity at the site of vascular injury dictates the size...

```
?

Set     Items   Description
S1        188   (HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W) (P-
                ROGENITOR? OR PRECURSOR?))
S2          0   S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
S3          0   S1 AND (OCULAR (W) ANGIOGENESIS)
S4         12   S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
S5         10   RD (unique items)
S6          0   S1 AND (ANTI-ANGIOGENESIS OR ANTI-ANGIOGENIC OR TRPRS)
S7          8   S1 AND (PLASMID OR VECTOR)
S8          7   RD (unique items)
S9          7   S1 AND (INTRAVITREALLY OR INTRAVITREAL)
S10         3   RD (unique items)
?
S (TRYPTOPHAN (W) RNA (W) SYNTHETASE)
          103547  TRYPTOPHAN
         1575955  RNA
           99317  SYNTHETASE
     S11       0  (TRYPTOPHAN (W) RNA (W) SYNTHETASE)
?
S TRPRS OR T2-TRPRS
             177  TRPRS
               0  T2-TRPRS
     S12     177  TRPRS OR T2-TRPRS
?
S S12 AND (ANGIOGENESIS OR ANTI-ANGIOGENESIS)
             177  S12
           83794  ANGIOGENESIS
              34  ANTI-ANGIOGENESIS
     S13      21  S12 AND (ANGIOGENESIS OR ANTI-ANGIOGENESIS)
?
RD
...completed examining records
     S14       8  RD (unique items)
?
T S14/3,K/ALL

  14/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.

16586816   PMID: 15627054
 Cytokine-like activities of some aminoacyl-tRNA synthetases and auxiliary
 p43 cofactor of aminoacylation reaction and their role in oncogenesis.
  Ivakhno Serhiy S; Kornelyuk Alexander I
  Institute of Molecular Biology and Genetics, NAS of Ukraine, Kyiv,
Ukraine.
  Exp Oncol (Ukraine)   Dec 2004,  26  (4)  p250-5,  ISSN 1812-9269
Journal Code: 101230541
  Publishing Model Print
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: In Process
```

... enzymes and cofactors of aminoacylation reactions, by means of which

tRNAs are attached to their cognate amino acids. Tyrosyl-tRNA synthetase (TyrRS), tryptophanyl-tRNA synthetases (**TrpRS**) and auxiliary factor of mammalian multi-aminoacyl-tRNA synthetases, p43 (precusor of endothelial monocyte activating polypeptide II - EMAP II) upon their release in intracellular environment become proinflammatory cytokines with multiple activities during apoptosis, **angiogenesis** and inflammation. In addition, these proteins play important role in cancer progression, modulating tumor **angiogenesis** and its escape from surveillance by immune system.

14/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15330895 PMID: 15130561
Relationship of two human tRNA synthetases used in cell signaling.
Yang Xiang-Lei; Schimmel Paul; Ewalt Karla L
The Skaggs Institute for Chemical Biology, The Scripps Research Institute, BCC379, 10550 North Torrey Pines Road, La Jolla, CA 92037, USA.
Trends in biochemical sciences (England) May 2004, 29 (5) p250-6, ISSN 0968-0004 Journal Code: 7610674
Contract/Grant No.: CA 92577; CA; NCI
Publishing Model Print
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Human tyrosyl-tRNA synthetase (TyrRS) and tryptophanyl-tRNA synthetase (**TrpRS**) are closely related, dual function enzymes that act in protein biosynthesis and **angiogenesis** . The recent crystallographic structures of these two enzymes show that they adopt remarkably similar three-dimensional (3D) architectures, being more like each other than like their respective prokaryotic orthologs. In particular, adaptations to the anticodon recognition domain of TyrRS cause distinct appended domains in TyrRS and **TrpRS** to occupy the same 3D space and thus to mask a common surface on each synthetase. Thought to be important for cell-signaling activity, this ....

14/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15210109 PMID: 14660560
Crystal structure of human tryptophanyl-tRNA synthetase catalytic fragment: insights into substrate recognition, tRNA binding, and angiogenesis **activity.**
Yu Yadong; Liu Yunqing; Shen Ning; Xu Xiang; Xu Feng; Jia Jie; Jin Youxin ; Arnold Eddy; Ding Jianping
Key Laboratory of Proteomics and State Key Laboratory of Molecular Biology, Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, 320 Yue-Yang Road, Shanghai 200031, China.
Journal of biological chemistry (United States) Feb 27 2004, 279 (9) p8378-88, ISSN 0021-9258 Journal Code: 2985121R
Contract/Grant No.: AI 27690; AI; NIAID; GM 66671; GM; NIGMS
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Crystal structure of human tryptophanyl-tRNA synthetase catalytic fragment: insights into substrate recognition, tRNA binding, and

angiogenesis **activity.**
... A resolution, which was solved using the multi-wavelength anomalous diffraction method. T2-hTrpRS shares a very low sequence homology of 22% with Bacillus stearothermophilus **TrpRS** (bTrpRS); however, their overall structures are strikingly similar. Structural comparison of T2-hTrpRS with bTrpRS reveals substantial structural differences in the substrate-binding pocket and...

14/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15183175 PMID: 14757836
A new gamma-interferon-inducible promoter and splice variants of an anti-angiogenic human tRNA synthetase.
Liu Jianming; Shue Eveline; Ewalt Karla L; Schimmel Paul
The Skaggs Institute for Chemical Biology and the Department of Molecular Biology, The Scripps Research Institute, 10550 North Torrey Pines Road, BCC-379, La Jolla, CA 92037, USA.
Nucleic acids research (England) 2004, 32 (2) p719-27, ISSN 1362-4962 Journal Code: 0411011
Contract/Grant No.: CA92577; CA; NCI
Publishing Model Electronic-Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Two forms of human tryptophanyl-tRNA synthetase (**TrpRS**) are produced in vivo through alternative mRNA splicing. The two forms, full-length **TrpRS** and mini **TrpRS** , are catalytically active, but are distinguished by the striking anti-proliferative and anti-angiogenic activity specific to mini **TrpRS** . Here we describe two new splice variants of human **TrpRS** mRNA. Their production was strongly regulated by gamma-interferon (IFN-gamma), an anti-proliferative cytokine known to stimulate the expression of other anti-angiogenic factors...

... upstream' signal transducer and activator of transcription 1alpha subunit. Thus, the tandem promoters provide a dual system to regulate expression and alternative splicing of human **TrpRS** in vivo.
Descriptors: *Alternative Splicing--drug effects--DE; * **Angiogenesis** Inhibitors--genetics--GE; *Gene Expression Regulation, Enzymologic--drug effects--DE; *Interferon Type II--pharmacology--PD; *Promoter Regions (Genetics)--drug effects--DE; *Tryptophan-tRNA Ligase--genetics...
Chemical Name: 5' Untranslated Regions; **Angiogenesis** Inhibitors; DNA-Binding Proteins; Isoenzymes; Phosphoproteins; RNA, Messenger; interferon regulatory factor-1; Interferon Type II; Tryptophan-tRNA Ligase

14/3,K/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15105947 PMID: 14630953
Biologically active fragment of a human tRNA synthetase inhibits fluid shear stress-activated responses of endothelial cells.
Tzima E; Reader J S; Irani-Tehrani M; Ewalt K L; Schwartz M A; Schimmel P
Department of Molecular Biology, The Scripps Research Institute, La Jolla, CA 92037, USA.
Proceedings of the National Academy of Sciences of the United States of America (United States) Dec 9 2003, 100 (25) p14903-7, ISSN 0027-8424 Journal Code: 7505876
Contract/Grant No.: CA92577; CA; NCI; PO1 HL48728; HL; NHLBI
Publishing Model Print-Electronic

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Human tryptophanyl-tRNA synthetase (**TrpRS**) is active in translation and **angiogenesis** . In particular, an N-terminally truncated fragment, T2-**TrpRS** , that is closely related to a natural splice variant is a potent antagonist of vascular endothelial growth factor-induced **angiogenesis** in several in vivo models. In contrast, full-length native **TrpRS** is inactive in the same models. However, vascular endothelial growth factor stimulation is only one of many physiological and pathophysiological stimuli to which the vascular endothelium responds. To investigate more broadly the role of T2- **TrpRS** in vascular homeostasis and pathophysiology, the effect of T2-**TrpRS** on well characterized endothelial cell (EC) responses to flow-induced fluid shear stress was studied. T2- **TrpRS** inhibited activation by flow of protein kinase B (Akt), extracellular signal-regulated kinase 1/2, and EC NO synthase and prevented transcription of several shear stress-responsive genes. In addition, T2- **TrpRS** interfered with the unique ability of ECs to align in the direction of fluid flow. In all of these assays, native **TrpRS** was inactive, demonstrating that **angiogenesis** -related activity requires fragment production. These results demonstrate that T2- **TrpRS** can regulate extracellular signal-activated protein kinase, Akt, and EC NO synthase activation pathways that are associated with **angiogenesis** , cytoskeletal reorganization, and shear stress-responsive gene expression. Thus, this biological fragment of **TrpRS** may have a role in the maintenance of vascular homeostasis.

14/3,K/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14021306 PMID: 11773626
A human aminoacyl-tRNA synthetase as a regulator of angiogenesis .
Wakasugi Keisuke; Slike Bonnie M; Hood John; Otani Atsushi; Ewalt Karla L ; Friedlander Martin; Cheresh David A; Schimmel Paul
The Skaggs Institute for Chemical Biology and Department of Molecular Biology, The Scripps Research Institute, La Jolla, CA 92037, USA.
Proceedings of the National Academy of Sciences of the United States of America (United States) Jan 8 2002, 99 (1) p173-7, ISSN 0027-8424
Journal Code: 7505876
Contract/Grant No.: CA92577; CA; NCI; EY12599; EY; NEI; GM23562; GM; NIGMS
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

A human aminoacyl-tRNA synthetase as a regulator of angiogenesis .
...tyrosyl-tRNA synthetase (TyrRS) can be split into two fragments having distinct cytokine activities, thereby linking protein synthesis to cytokine signaling pathways. Tryptophanyl-tRNA synthetase (**TrpRS**) is a close homologue of TyrRS. A natural fragment, herein designated as mini **TrpRS** , was shown by others to be produced by alternative splicing. Production of this fragment is reported to be stimulated by IFN-gamma, a cytokine that also stimulates production of angiostatic factors. Mini **TrpRS** is shown here to be angiostatic in a mammalian cell culture system, the chicken embryo, and two independent **angiogenesis** assays in the mouse. The full-length enzyme is inactive in the same assays. Thus, protein synthesis may be linked to the regulation of **angiogenesis** by a natural fragment of **TrpRS** .

14/3,K/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14021305 PMID: 11773625
A fragment of human TrpRS **as a potent antagonist of ocular** angiogenesis .
Otani Atsushi; Slike Bonnie M; Dorrell Michael I; Hood John; Kinder Karen ; Ewalt Karla L; Cheresh David; Schimmel Paul; Friedlander Martin
Department of Cell Biology, The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA 92037, USA.
Proceedings of the National Academy of Sciences of the United States of America (United States) Jan 8 2002, 99 (1) p178-83, ISSN 0027-8424 Journal Code: 7505876
Contract/Grant No.: CA92577; CA; NCI; EY12599; EY; NEI; GM23652; GM; NIGMS
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

A fragment of human TrpRS **as a potent antagonist of ocular** angiogenesis .
Pathological **angiogenesis** contributes directly to profound loss of vision associated with many diseases of the eye. Recent work suggests that human tyrosyl- and tryptophanyl-tRNA synthetases (**TrpRS**) link protein synthesis to signal transduction pathways including **angiogenesis** . In this study, we show that a recombinant form of a COOH-terminal fragment of **TrpRS** is a potent antagonist of vascular endothelial growth factor-induced **angiogenesis** in a mouse model and of naturally occurring retinal **angiogenesis** in the neonatal mouse. The angiostatic activity is dose-dependent in both systems. The recombinant fragment is similar in size to one generated naturally by alternative splicing and can be produced by proteolysis of the full-length protein. In contrast, the full-length protein is inactive as an antagonist of **angiogenesis** . These results suggest that fragments of **TrpRS** , as naturally occurring and potentially nonimmunogenic anti-angiogenics, can be used for the treatment of neovascular eye diseases.
Descriptors: ***Angiogenesi** s Inhibitors--pharmacology--PD; *Neovascularization, Pathologic; *Retinal Vessels--physiology--PH; *Tryptophan-tRNA Ligase--chemistry--CH; *Tryptophan-tRNA Ligase--physiology--PH
Chemical Name: **Angiogenesis** Inhibitors; Drug Combinations; Endothelial Growth Factors; Laminin; Lymphokines; Proteoglycans; Recombinant Proteins; Vascular Endothelial Growth Factor A; Vascular Endothelial Growth Factors; matrigel; Collagen; Tryptophan-tRNA Ligase

14/3,K/8 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014206478 BIOSIS NO.: 200300165197
Endothelial Progenitor Cell-Based Delivery of TrpRS **Fragments Inhibits Retinal** Angiogenesis .
AUTHOR: Otani A (Reprint); Kinder K (Reprint); Ewalt K; Slike B; Otero F; Schimmel P; Friedlander M (Reprint)
AUTHOR ADDRESS: Department of Cell Biology, The Scripps Research Institute, La Jolla, CA, USA**USA
JOURNAL: ARVO Annual Meeting Abstract Search and Program Planner 2002 p Abstract No. 3715 2002 2002
MEDIUM: cd-rom
CONFERENCE/MEETING: Annual Meeting of the Association For Research in

Vision and Ophthalmology Fort Lauderdale, Florida, USA May 05-10, 2002; 20020505
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

Endothelial Progenitor Cell-Based Delivery of TrpRS **Fragments Inhibits Retinal** Angiogenesis .

...ABSTRACT: that endothelial progenitor cells localize to, and become part of, newly forming murine retinal vasculature. This study utilizes cell-based delivery of T2 to inhibit **angiogenesis** in a murine retinal model. Methods: MACS was used to separate Lin- progenitor cells from murine bone marrow. Cells were transfected with a plasmid encoding...

...analysis confirmed the production of secreted T2 by transfected endothelial progenitor cells. Eyes receiving T2 transfected endothelial progenitor cells exhibited complete disruption of ongoing retinal **angiogenesis** . Injection of cells transfected with control plasmid, had no effect on **angiogenesis** . Conclusion: These results demonstrate that cell-based delivery can be used to selectively target neovascularization in the eye with novel, potent anti-angiogenics.
DESCRIPTORS:
MISCELLANEOUS TERMS: **angiogenesis** ;
?

```
Set     Items   Description
S1        188   (HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W) (P-
                ROGENITOR? OR PRECURSOR?))
S2          0   S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
S3          0   S1 AND (OCULAR (W) ANGIOGENESIS)
S4         12   S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
S5         10   RD (unique items)
S6          0   S1 AND (ANTI-ANGIOGENESIS OR ANTI-ANGIOGENIC OR TRPRS)
S7          8   S1 AND (PLASMID OR VECTOR)
S8          7   RD (unique items)
S9          7   S1 AND (INTRAVITREALLY OR INTRAVITREAL)
S10         3   RD (unique items)
S11         0   (TRYPTOPHAN (W) RNA (W) SYNTHETASE)
S12       177   TRPRS OR T2-TRPRS
S13        21   S12 AND (ANGIOGENESIS OR ANTI-ANGIOGENESIS)
S14         8   RD (unique items)
?
S (ENDOTHELIAL (W) PROGENITOR (W) CELL) (S) (THERAPY OR TREATMENT)
          367383  ENDOTHELIAL
           83934  PROGENITOR
         8545444  CELL
         5809733  THERAPY
         5118124  TREATMENT
     S15      32  (ENDOTHELIAL (W) PROGENITOR (W) CELL) (S) (THERAPY OR
                  TREATMENT)
?
S S15 AND REVIEW
              32  S15
         1854259  REVIEW
     S16      5  S15 AND REVIEW
?
RD
...completed examining records
     S17      2  RD (unique items)
?
T S17/3,K/ALL

  17/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
```

12821493 PMID: 10757017
Stem cell therapy and gene transfer for regeneration.
Asahara T; Kalka C; Isner J M
St Elizabeth's Medical Center, Tufts University School of Medicine, Boston, MA, USA.
Gene therapy (ENGLAND) Mar 2000, 7 (6) p451-7, ISSN 0969-7128 Journal Code: 9421525
Publishing Model Print
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... progenitor cell. These adult stem cells have several advantages as compared with embryonic stem cells as their practical therapeutic application for tissue regeneration. In this **review** , we discuss the promising gene **therapy** application of adult stem and progenitor cells in terms of modifying stem cell potency, altering organ property, accelerating regeneration and forming expressional organization.

17/3,K/2 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

11761217 EMBASE No: 2002334077
Angiogenesis
Grossman J.D.; Grossman W.
Dr. J.D. Grossman, Clinical Development, Accuracy Inc., Sunnyvale, CA United States
Reviews in Cardiovascular Medicine (REV. CARDIOVASC. MED.) (United States) 2002, 3/3 (138-144)
CODEN: RCMEC ISSN: 1530-6550
DOCUMENT TYPE: Journal ; Review
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 28

...of improved perfusion and left ventricular function. Larger-scale, placebo-controlled trials, as well as studies of combinations of growth factors and the use of **endothelial progenitor - cell** or stem-cell supplementation, are in progress. Revascularization of ischemic myocardium with angiogenic compounds and without the mechanical manipulation of atherosclerotic vessels has great potential in the **treatment** of coronary artery disease. If it is proven to be both safe and efficacious, the revascularization of tissue biologically via medical or gene **therapy** will be a major advance in the **treatment** of patients with a diffuse disease that is not amenable to conventional **therapy** and in the augmentation of revascularization in patients undergoing traditional surgical therapies.

MEDICAL DESCRIPTORS:
...drug therapy--dt; gene delivery system; gene transfer; recombinant gene; drug tolerability; adenovirus vector; human; nonhuman; rat; clinical trial; animal experiment; animal model; controlled study; **review**
?

Set	Items	Description
S1	188	(HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W) (P-ROGENITOR? OR PRECURSOR?))
S2	0	S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
S3	0	S1 AND (OCULAR (W) ANGIOGENESIS)
S4	12	S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
S5	10	RD (unique items)
S6	0	S1 AND (ANTI-ANGIOGENESIS OR ANTI-ANGIOGENIC OR TRPRS)

```
S7          8   S1 AND (PLASMID OR VECTOR)
S8          7   RD (unique items)
S9          7   S1 AND (INTRAVITREALLY OR INTRAVITREAL)
S10         3   RD (unique items)
S11         0   (TRYPTOPHAN (W) RNA (W) SYNTHETASE)
S12       177   TRPRS OR T2-TRPRS
S13        21   S12 AND (ANGIOGENESIS OR ANTI-ANGIOGENESIS)
S14         8   RD (unique items)
S15        32   (ENDOTHELIAL (W) PROGENITOR (W) CELL) (S) (THERAPY OR TREA-
              TMENT)
S16         5   S15 AND REVIEW
S17         2   RD (unique items)
?
RD S15
...completed examining records
     S18      16  RD S15 (unique items)
?
S S18 NOT S17
              16  S18
               2  S17
     S19      15  S18 NOT S17
?
T S19/3,K/ALL
```

19/3,K/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.

17284045 PMID: 15711739

Towards optimization of selective photothermolysis: prothrombotic pharmaceutical agents as potential adjuvants in laser treatment of port wine stains. A theoretical study.

Heger Michal; Beek Johan F; Moldovan Nicanor I; van der Horst Chantal M A M; van Gemert Martin J C

Laser Center, Academic Medical Center, University of Amsterdam, Meibergdreef 9, 1105 AZ Amsterdam, The Netherlands. M.Heger@amc.uva.nl

Thrombosis and haemostasis (Germany) Feb 2005, 93 (2) p242-56, ISSN 0340-6245 Journal Code: 7608063

Contract/Grant No.: HL65983; HL; NHLBI

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Process

... threshold damage profile that is required for clinically relevant thrombus formation. Consequently, a recently proposed model of thrombus organization, in which recanalization is associated with **endothelial progenitor cell** -mediated neovasculogenesis, is elaborated in the framework of lesional blanching and juxtaposed to angiogenic reconstruction of affected dermal vasculature. Since neovasculogenesis and angiogenesis are regulated...

...which the procoagulant drugs are encapsulated by a wavelength-modulated, gold-coated polymer matrix, is proposed. We have termed this modality site-specific pharmaco-laser **therapy** .

19/3,K/2 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.

17267009 PMID: 15643130

Angiotensin II accelerates endothelial progenitor cell senescence through induction of oxidative stress.

Imanishi Toshio; Hano Takuzo; Nishio Ichiro
Department of Cardiovascular Medicine, Wakayama Medical University, Wakayama, Japan. t-imani@wakayama-med.ac.jp
Journal of hypertension (England) Jan 2005, 23 (1) p97-104, ISSN 0263-6352 Journal Code: 8306882
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: In Process

... was attenuated by Ang II type 1 (AT1) receptor antagonist valsartan. Similarly, Western blotting revealed that Ang II stimulated an increase in gp91phox, whereas pre- **treatment** with Valsartan reduced the Ang II-induced expression of gp91phox protein. Valsartan as well as superoxide dismutase (SOD) also inhibited Ang II-induced peroxynitrite formation...

... to a control during 14 days in culture as determined by acidic beta-galactosidase staining. Ang II-induced EPC senescence was significantly inhibited by pre- **treatment** of either valsartan or SOD ($P < 0.01$). Because cellular senescence is critically influenced by telomerase, which elongates telomeres, we measured telomerase activity by using PCR-enzyme-linked immunosorbent-based assay. Ang II significantly diminished telomerase activity, although the effect was significantly reduced by pre- **treatment** with either valsartan or SOD ($P < 0.01$). We examined whether Ang II-induced EPC senescence translates into an impairment of EPC proliferation. MTS [3...

19/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

16393287 PMID: 14685707
Statin therapy in patients with coronary artery disease improves the impaired endothelial progenitor cell differentiation into cardiomyogenic cells.
Rupp Stefan; Badorff Cornel; Koyanagi Masamichi; Urbich Carmen; Fichtlscherer Stephan; Aicher Alexandra; Zeiher Andreas M; Dimmeler Stefanie
Molecular Cardiology, Dept. of Internal Medicine IV, University of Frankfurt, Theodor-Stern-Kai 7, 60590 Frankfurt, Germany.
Basic research in cardiology (Germany) Jan 2004, 99 (1) p61-8, ISSN 0300-8428 Journal Code: 0360342
Publishing Model Print-Electronic
Document type: Clinical Trial; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Statin therapy in patients with coronary artery disease improves the impaired endothelial progenitor cell differentiation into cardiomyogenic cells.

19/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

16146084 PMID: 15466656
Statin-induced improvement of endothelial progenitor cell mobilization, myocardial neovascularization, left ventricular function, and survival after experimental myocardial infarction requires endothelial nitric oxide synthase.
Landmesser Ulf; Engberding Niels; Bahlmann Ferdinand H; Schaefer Arnd;

Wiencke Antje; Heineke Andre; Spiekermann Stephan; Hilfiker-Kleiner Denise; Templin Christian; Kotlarz Daniel; Mueller Maja; Fuchs Martin; Hornig Burkhard; Haller Hermann; Drexler Helmut
Abteilung Kardiologie und Angiologie, Medizinische Hochschule Hannover, Hannover, Germany. Landmesser.Ulf@mh-hannover.de.
Circulation (United States) Oct 5 2004, 110 (14) p1933-9, ISSN 1524-4539 Journal Code: 0147763
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: In Process

... increasing eNO production and reducing NO inactivation. We therefore studied the effect of statin treatment on eNO availability after MI and tested its role for **endothelial progenitor cell** mobilization, myocardial neovascularization, left ventricular (LV) dysfunction, remodeling, and survival after MI. METHODS AND RESULTS: Wild-type (WT) and eNO synthase (eNOS)-/- mice with extensive anterior MI were randomized to **treatment** with vehicle (V) or atorvastatin (Ator, 50 mg/kg QD by gavage) for 4 weeks starting on day 1 after MI. Ator markedly improved endothelium ...

... not in eNOS-/- mice (43% versus 48%; NS, n=42). CONCLUSIONS: These findings suggest that increased eNO availability is required for statin-induced improvement of **endothelial progenitor cell** mobilization, myocardial neovascularization, LV dysfunction, interstitial fibrosis, and survival after MI. eNO bioavailability after MI likely represents an important therapeutic target in heart failure after MI and mediates beneficial effects of statin **treatment** after MI.

19/3,K/5 (Item 5 from file: 155)

16121450 PMID: 15337699
Synergistic effect of bone marrow mobilization and vascular endothelial growth factor-2 gene therapy in myocardial ischemia.
Kawamoto Atsuhiko; Murayama Toshinori; Kusano Kengo; Ii Masaaki; Tkebuchava Tengiz; Shintani Satoshi; Iwakura Atsushi; Johnson Ingrid; von Samson Patrick; Hanley Allison; Gavin Mary; Curry Cindy; Silver Marcy; Ma Hong; Kearney Marianne; Losordo Douglas W
Division of Cardiovascular Research, St Elizabeth's Medical Center, Tufts University School of Medicine, Boston, Mass 02135, USA.
Circulation (United States) Sep 14 2004, 110 (11) p1398-405, ISSN 1524-4539 Journal Code: 0147763
Contract/Grant No.: HL-53354; HL; NHLBI; HL-57515; HL; NHLBI; HL-60911; HL; NHLBI; HL-63414; HL; NHLBI; HL-63695; HL; NHLBI; HL-66957; HL; NHLBI
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: In Process

BACKGROUND: We performed a series of investigations to test the hypothesis that combining angiogenic gene therapy and cytokine (CK)-induced **endothelial progenitor cell** mobilization would be superior to either strategy alone for **treatment** of chronic myocardial ischemia. METHODS AND RESULTS: A swine model of chronic myocardial ischemia and a murine model of acute myocardial infarction were used in this study. In both models, animals were randomly assigned to 1 of 4 **treatment** groups: Combo group, intramyocardial vascular endothelial growth factor (VEGF)-2 gene transfer plus subcutaneous injection of CKs; VEGF-2, VEGF-2 gene transfer plus saline...

... green fluorescent protein transgenic mice to permit observation of bone marrow-derived cells in the myocardium after acute myocardial infarction. In chronic myocardial ischemia, combination **therapy** resulted in superior improvement in all indexes of perfusion and function compared with all other **treatment** groups. In the bone marrow transplant mice, double immunofluorescent staining revealed that the combination of CK-induced mobilization and local VEGF-2 gene transfer resulted...

... gene transfer can provide signals for recruitment or incorporation of circulating progenitor cells. CONCLUSIONS: Mobilization of endothelial progenitor cells with cytokines potentiates VEGF-2 gene **therapy** for myocardial ischemia and enhances bone marrow cell incorporation into ischemic myocardium.

19/3,K/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15081050 PMID: 14597586
Isolation and transplantation of autologous circulating endothelial cells into denuded vessels and prosthetic grafts: implications for cell-based vascular therapy.
Griese Daniel P; Ehsan Afshin; Melo Luis G; Kong Deling; Zhang Lunan; Mann Michael J; Pratt Richard E; Mulligan Richard C; Dzau Victor J
Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, 75 Francis St, Boston, Mass 02115, USA.
Circulation (United States) Nov 25 2003, 108 (21) p2710-5, ISSN 1524-4539 Journal Code: 0147763
Contract/Grant No.: HL-058516; HL; NHLBI; HL-072010; HL; NHLBI; HL-073219; HL; NHLBI; HL-35610; HL; NHLBI
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... report, we describe a streamlined method for the isolation and expansion of EPCs from peripheral blood and evaluate their therapeutic potential for autologous cell-based **therapy** of injured blood vessels and prosthetic grafts. A subset of unfractionated mononuclear cells exhibited the potential to differentiate in vitro into endothelial cells under selective...

19/3,K/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14495037 PMID: 12439438
Angiogenesis.
Grossman Jessica D; Grossman William
Clinical Development, Accuray, Inc., Sunnyvale, California, USA.
Reviews in cardiovascular medicine (United States) Summer 2002, 3 (3) p138-44, ISSN 1530-6550 Journal Code: 100960007
Publishing Model Print
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... cell supplementation, are in progress. Revascularization of ischemic myocardium with angiogenic compounds and without the mechanical manipulation of atherosclerotic vessels has great potential in the

treatment of coronary artery disease. If it is proven to be both safe and efficacious, the revascularization of tissue biologically via medical or gene **therapy** will be a major advance in the **treatment** of patients with a diffuse disease that is not amenable to conventional **therapy** and in the augmentation of revascularization in patients undergoing traditional surgical therapies.

19/3,K/8 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13820682 PMID: 11489932
HMG-CoA reductase inhibitors (statins) increase endothelial progenitor cells via the PI 3-kinase/Akt pathway.
Dimmeler S; Aicher A; Vasa M; Mildner-Rihm C; Adler K; Tiemann M; Rutten H; Fichtlscherer S; Martin H; Zeiher A M
Division of Molecular Cardiology, Department of Medicine IV, University of Frankfurt, Frankfurt, Germany. Dimmeler@em.uni-frankfurt.de
Journal of clinical investigation (United States) Aug 2001, 108 (3) p391-7, ISSN 0021-9738 Journal Code: 7802877
Publishing Model Print; Comment in J Clin Invest. 2001 Aug;108(3) 365-6; Comment in PMID 11489928
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... Here we demonstrate that statins potently augment endothelial progenitor cell differentiation in mononuclear cells and CD34-positive hematopoietic stem cells isolated from peripheral blood. Moreover, **treatment** of mice with statins increased c-kit(+)/Sca-1(+)--positive hematopoietic stem cells in the bone marrow and further elevated the number of differentiated endothelial...

19/3,K/9 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014692897 BIOSIS NO.: 200400063654
Statin therapy reverses the impaired endothelial progenitor cell **differentiation into cardiomyocytes in patients with coronary artery disease.**
AUTHOR: Rupp Stefan (Reprint); Koyanagi Masamichi (Reprint); Fichtlscherer Stefan (Reprint); Badorff Cornel (Reprint)
AUTHOR ADDRESS: Dept of Cardiology, Univ Hosp Frankfurt/Main, Lab 1L1, Hs. 23B, Frankfurt, Germany**Germany
JOURNAL: Circulation 108 (17 Supplement): pIV-218 October 28, 2003 2003
MEDIUM: print
CONFERENCE/MEETING: American Heart Association Scientific Sessions 2003 Orlando, FL, USA November 09-12, 2003; 20031109
SPONSOR: American Heart Association
ISSN: 0009-7322 _(ISSN print)
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

Statin therapy reverses the impaired endothelial progenitor cell **differentiation into cardiomyocytes in patients with coronary artery disease.**

19/3,K/10 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014647331 BIOSIS NO.: 200400014315
Statin therapy reverses the impaired endothelial progenitor cell **differentiation into cardiomyocytes in patients with coronary artery disease.**
AUTHOR: Badorff C (Reprint); Rupp S (Reprint); Koyanagi M (Reprint); Fichtlscherer S (Reprint); Urbich C (Reprint); Aicher A (Reprint); Zeiher A M (Reprint); Dimmeler S (Reprint)
AUTHOR ADDRESS: Department of Medicine IV - Cardiology, University Hospital, Frankfurt, Germany**Germany
JOURNAL: European Heart Journal 24 (Abstract Supplement): p224 August-September 2003 2003
MEDIUM: print
CONFERENCE/MEETING: Congress of the European Society of Cardiology Vienna, Austria August 30-September 03, 2003; 20030830
SPONSOR: European Society of Cardiology
ISSN: 0195-668X _(ISSN print)
DOCUMENT TYPE: Meeting; Meeting Poster; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

Statin therapy reverses the impaired endothelial progenitor cell **differentiation into cardiomyocytes in patients with coronary artery disease.**

19/3,K/11 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014408955 BIOSIS NO.: 200300367674
Anti-SDF-1 Antibody Blocks Retinal Neovascularization in Adult Onset Retinal Ischemia Model.
AUTHOR: Butler Jason M (Reprint); Guthrie Steven M (Reprint); Grant Maria (Reprint); Brown Gary A J (Reprint); Scott Edward W (Reprint)
AUTHOR ADDRESS: Molecular Genetics and Microbiology, University of Florida, Gainesville, FL, USA**USA
JOURNAL: Blood 100 (11): pAbstract No. 4190 November 16, 2002 2002
MEDIUM: print
CONFERENCE/MEETING: 44th Annual Meeting of the American Society of Hematology Philadelphia, PA, USA December 06-10, 2002; 20021206
SPONSOR: American Society of Hematology
ISSN: 0006-4971
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: ischemia. Our results showed a complete abrogation of hemangioblast (HSC) derived neovascularization. These results suggest that we can use anti-SDF-1 for a potential **treatment** of diabetic retinopathy.

19/3,K/12 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013670621 BIOSIS NO.: 200200264132
An essential role of vascular endothelial growth factor in the mechanism by which endothelial progenitor cell therapy **can reduce myocardial infarct size after coronary artery ligation**
AUTHOR: Hiasa Ken-ichi (Reprint); Kitamoto Shiro; Kataoka Chu; Usui Makoto; Zhao Qing-Wei; Ni Weihua; Inoue Shujiro; Ishibashi Minako; Egashira Kensuke

AUTHOR ADDRESS: Graduate Sch of Med Sciences, Kyushu Univ, Fukuoka, Japan**
Japan
JOURNAL: Circulation 104 (17 Supplement): pII.229 October 23, 2001 2001
MEDIUM: print
CONFERENCE/MEETING: Scientific Sessions 2001 of the American Heart
Association Anaheim, California, USA November 11-14, 2001; 20011111
SPONSOR: American Heart Association
ISSN: 0009-7322
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

An essential role of vascular endothelial growth factor in the mechanism by which endothelial progenitor cell therapy **can reduce myocardial infarct size after coronary artery ligation**
DESCRIPTORS:
...METHODS & EQUIPMENT: endothelial progenitor cell **therapy** --

19/3,K/13 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012470067 BIOSIS NO.: 200000188380
Augmentation of postnatal neovascularization by transplantation of cord blood-derived endothelial progenitor cells
AUTHOR: Murohara Toyoaki (Reprint); Matsui Kazuo (Reprint); Imaizumi
Tsutomu (Reprint)
AUTHOR ADDRESS: Cardiovascular Research Institute, Kurume University School
of Medicine, Kurume, Japan**Japan
JOURNAL: Journal of the American College of Cardiology 35 (2 suppl. A): p
545A Feb., 2000 2000
MEDIUM: print
CONFERENCE/MEETING: 29th Annual Scientific Session of the American College
of Cardiology. Anaheim, California, USA March 12-15, 2000; 20000312
ISSN: 0735-1097
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

DESCRIPTORS:
...METHODS & EQUIPMENT: transplantation **treatment**

19/3,K/14 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012306572 BIOSIS NO.: 200000024885
Gene therapy of endothelial progenitor cell **for vascular development in severe ischemic disease**
AUTHOR: Asahara Takayuki (Reprint); Iwaguro Hideki (Reprint); Kalka
Christoph (Reprint); Masuda Haruchika (Reprint); Hayashi Shin-ichiro
(Reprint); Silver Marcy (Reprint)
AUTHOR ADDRESS: St Elizabeth's Med Ctr, Boston, MA, USA**USA
JOURNAL: Circulation 100 (18 SUPPL.): pI.481 Nov. 2, 1999 1999
MEDIUM: print
CONFERENCE/MEETING: 72nd Scientific Sessions of the American Heart
Association Atlanta, Georgia, USA November 7-10, 1999; 19991107
ISSN: 0009-7322
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

Gene therapy of endothelial progenitor cell **for vascular development**

in severe ischemic disease
DESCRIPTORS:
METHODS & EQUIPMENT: endothelial progenitor cell gene **therapy** --

19/3,K/15 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

12402649 EMBASE No: 2003510721
In Vitro Differentiation of Mouse Embryonic Stem Cells: Hematopoietic and Vascular Cell Types
Fraser S.T.; Yamashita J.; Jakt L.M.; Okada M.; Ogawa M.; Nishikawa S.; Nishikawa S.-I.
S.T. Fraser, Lab. of Molecular Mouse Genetics, Institute for Toxicology, Johannes Gutenberg-University, Obere Zahlbacher Strasse 67, Mainz 55131 Germany
Methods in Enzymology (METHODS ENZYMOL.) (United States) 2003, 365/- (59-72)
CODEN: MENZA ISSN: 0076-6879
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 21

...stem cells have been posited as sources of differentiated cell types for regenerative medicine. One of the most enticing cell types is the recently described **endothelial progenitor cell** (EPC) which can contribute to blood vessels and is a candidate for **therapy** against vascular diseases. Here, we describe an in vitro differentiation system which results in the generation of endothelial, smooth muscle and hematopoietic cells from ES...
?

Set	Items	Description
S1	188	(HEMATOPOIETIC (W) STEM (W) CELLS) AND (ENDOTHELIAL (W) (PROGENITOR? OR PRECURSOR?))
S2	0	S1 AND (CD45 AND CD3 AND CD11 AND TER-119 AND LY-6G)
S3	0	S1 AND (OCULAR (W) ANGIOGENESIS)
S4	12	S1 AND ((OCULAR OR EYE) (W) (DISEASE? OR DISORDER?))
S5	10	RD (unique items)
S6	0	S1 AND (ANTI-ANGIOGENESIS OR ANTI-ANGIOGENIC OR TRPRS)
S7	8	S1 AND (PLASMID OR VECTOR)
S8	7	RD (unique items)
S9	7	S1 AND (INTRAVITREALLY OR INTRAVITREAL)
S10	3	RD (unique items)
S11	0	(TRYPTOPHAN (W) RNA (W) SYNTHETASE)
S12	177	TRPRS OR T2-TRPRS
S13	21	S12 AND (ANGIOGENESIS OR ANTI-ANGIOGENESIS)
S14	8	RD (unique items)
S15	32	(ENDOTHELIAL (W) PROGENITOR (W) CELL) (S) (THERAPY OR TREATMENT)
S16	5	S15 AND REVIEW
S17	2	RD (unique items)
S18	16	RD S15 (unique items)
S19	15	S18 NOT S17

?
COST
23feb05 16:37:51 User259876 Session D715.2
$5.40 1.687 DialUnits File155
$4.83 23 Type(s) in Format 3
$4.83 23 Types
$10.23 Estimated cost File155
$1.52 0.515 DialUnits File159
$1.52 Estimated cost File159
$11.03 1.917 DialUnits File5

```
          $38.00  19 Type(s) in Format  3
        $38.00  19 Types
$49.03  Estimated cost File5
        $16.37    1.540 DialUnits File73
           $8.82  3 Type(s) in Format  3
         $8.82  3 Types
$25.19  Estimated cost File73
        OneSearch, 4 files,  5.659 DialUnits FileOS
 $4.00  INTERNET
$89.97  Estimated cost this search
$91.03  Estimated total session cost   5.888 DialUnits
?
```

Return to logon page!

Refine Search

Search Results -

Term	Documents
TRYPTOPHAN	40379
TRYPTOPHANS	659
RNA	123576
RNAS	22656
SYNTHETASE	16107
SYNTHETASES	1383
((TRYPTOPHAN ADJ RNA) ADJ SYNTHETASE).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	1
(((TRYPTOPHAN ADJ RNA) ADJ SYNTHETASE)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	1

Search Forms
Search Results
Help
User Searches
Preferences
Logout

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L11

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Wednesday, February 23, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=AND			
L11	((Tryptophan adj RNA) adj synthetase)	1	L11
L10	L2 not (L8 or L5 or L3)	67	L10

L9	L2 and (CD45 and CD3 and Ly-6G, CD11 and TER-119)	3	L9
L8	L7 not (L5 or L3)	17	L8
L7	L6 and L2	30	L7
L6	(ocular or eye) same (disease or disorder)	26538	L6
L5	L4 not L3	21	L5
L4	L2 and ((anti-angiogenic) or (anti-angiogenesis) or TrpRS)	23	L4
L3	L2 and (CD31 and c-kit)	11	L3
L2	((hematopoietic adj stem) adj cell) and (endothelial adj (progenitor or precursor))	116	L2
L1	Friedlander-Martin.in.	13	L1

END OF SEARCH HISTORY

PALM INTRANET

Day : Wednesday
Date: 2/23/2005
Time: 15:33:18

Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.
Additionally, enter the **first few letters** of the Inventor's First name.

Last Name	First Name	
Friedlander	Martin	Search

To go back use Back button on your browser toolbar.

Back to PALM | ASSIGNMENT | OASIS | Home page

PALM INTRANET

Day : Wednesday
Date: 2/23/2005
Time: 15:33:18

Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.
Additionally, enter the **first few letters** of the Inventor's First name.

Last Name	First Name	
Otani	Atsushi	Search

To go back use Back button on your browser toolbar.

Back to PALM | ASSIGNMENT | OASIS | Home page